

Claims 1 - 32 have been withdrawn from consideration pursuant to the election required in the First Office Action.

Claims 39 and 40 were added by amendment in the substitute specification filed May 18, 2007.

Claims 33 - 40 have been rejected in the final Office Action mailed July 19, 2007.

New claims 41 - 43 are added herewith.

Claims 33 - 43 now are pending in this application.

REQUEST FOR FURTHER EXAMINATION.

New Arguments By Examiner in Office Action of July 19, 2007.

Applicant was surprised that the Examiner stated new arguments in the Office Action of July 19, 2007, yet made it final. This request for further examination addresses those new arguments. New claims 41 - 43 are presented. No new matter is added.

In New Claims 41 - 43 The Open-ended Phrase "comprising a..." Has Been Replaced by The Closed-ended Phrase "comprising ... one of a".

The Office Action of July 19, 2007, at page 2, states:

"Applicant argues the Leal device does not fit in a single cheek, however, Applicant fails to claim that the device only fit in one cheek. The claim states "a spring element adapted to be placed within a user's cheek pouch, ..." but does not limit the device to only fitting in one cheek pouch because of the comprising language in the preamble." Office Action of July 19, 2007, p. 2. Applicant infers that the Examiner has construed the indefinite article "a" in the phrase "a user's cheek pouch" to have the open-ended meaning "one or more cheek

pouches" because the indefinite article "a" is used in the body of the claims following the transitional word "comprising."

In order to clearly focus the issue of patentable distinction between Applicant's cheek pouch anchor and the Leal device on the merits, Applicant files herewith by amendment three new claims 41 - 43. In each of these new claims Applicant has used the explicitly closed phrase "sized to fit within *one of a user's cheek pouches*" to clearly negate the Examiner's assertion that Applicant has failed to claim that the cheek pouch anchor fits within a single cheek pouch.

In the remaining limitations of new claims 41 - 43, other than the size limitation, Applicant explicitly employs the open-ended phrase "one or more of a user's cheek pouches." This explicitly open-ended language does not limit the number of such single-pouch-sized anchors that could be placed within a user's mouth and it does not limit the locations within the user's mouth where one or more of such single-pouch-sized anchors can be placed. By way of non-limiting examples:

Two of such single-pouch-sized anchors could be simultaneously placed in a user's mouth, one in each of a user's two cheek pouches;

Two of such single-pouch-sized anchors could be simultaneously placed within a single cheek pouch;

Two or more filaments could be combined into a single cheek pouch anchor, provided that the whole anchor met the size limitation "sized to fit within one of a user's cheek pouches."

The Soft Tissues of a User's Cheek Pouch Cannot Compress Leal's Device.

The Office Action of July 19, 2007, at pages 2 - 3, states:

"Applicant argues that the Leal device is intended to maintain the mouth open; however, the device can be compresses by the mouth if the jaw applies

force, even though the intended use is to hold the mouth open. If two fingers can compress the device, the much stronger jaw can compress it."

Applicant traverses the quoted statement. This is because Leal's U-shaped upper and lower sections 12 and 14 ultimately bear upon the soft tissues of the patient's cheek pouches, not upon the patient's teeth, even though cushioned by Leal's cotton rolls. Leal, col. 3, line 50 - col. 4, line 13; col. 4, line 36 - col. 5, line 12. It is incorrect to equate the compressive force that can be imparted by soft tissues with the force that can be imparted by teeth embedded in jaw bone, or with the compressive force that can be imparted by a dentist's fingers.

It is plain that the Leal device exploits the tenderness and sensitivity of soft tissues to prevent a user's mouth from closing. This is true even where the Leal device is cushioned with cotton. cf. Leal, col. 3, lines 7 - 17, col. 4, lines 51 - 55.

Leal repeatedly states that his device contacts the soft tissues of the mouth, including the following statements:

"Many different dental appliances have been proposed and used in the past in efforts to maintain the patient's mouth in an open position and expose the operative area. Such appliances often are uncomfortable for the patient, both during insertion and retraction, as well as during the performance of the dental work. More particularly, such appliances do not provide for the protection of the soft tissues of the mouth and often bear against such tissues during insertion, withdrawal and use, even to the extent of causing injury."

Leal, col. 1, lines 12 - 21.

"In one form, a clamping element is pivotally secured to each of the upper and lower sections for securing a cotton roll between the element and sections whereby the cotton roll completely envelops the portion of the appliance that otherwise would bear against the soft tissue of the patient's mouth." (bold, italic emphasis added). Leal, abstract, and Figs. 2 and 5.

"In another embodiment of the present invention and to provide for the patient's comfort when the appliance is disposed in the patient's mouth, the upper and lower sections may be wrapped with a flexible cushioning material. In this form the material bears and cushions between the gums and the lips when inserted." Leal, col. 2, lines 41-46.

".... a dental appliance for isolating an operating area of the mouth and maintaining the mouth in an open position comprising a frame including upper and lower generally U-shaped sections spaced in relation to one another and generally conformal in shape to the space between the upper gum and lip and lower gum and lip, respectively," Leal, col. 2, lines 58 - 65, and claims 1, 10 and 11.

"By locating the cotton rolls along the front and leg portions of each of the upper and lower sections, as described, the soft tissues of the mouth are fully protected from the wire of the appliance, ..." Leal, col 5, lines 3 - 6.

"Once inserted, the pressure on tabs 32 and 34 may be slowly released to locate the upper and lower sections, respectively, between the patient's upper gum and lips, on the one hand, and the lower gum and lip on the other hand." Leal, col. 5, lines 19-23.

Plainly, the Leal device performs its intended function of keeping the patient's mouth open by bearing against the soft tissues, rather than against the patient's teeth. There is nothing in the Leal specification, or in common experience, to support a conclusion that the soft tissues of a user's cheek pouch could compress the Leal device without unacceptable pain or even injury to those soft tissues.

The Examiner has not borne the burden of citing a factual basis to conclude that the soft tissues of a user's cheek pouch can impose the compressive forces equivalent to what a dentist's fingers can impose on Leal's tabs. Such a conclusion is contrary to common experience.

All of pending claims 33 - 43 therefore are patentably distinguished from Leal by the limitation that the spring element must "compress as a user's jaws close." This is a sufficient distinction from Leal in all existing claims, independently of the limitation in new claims 41 - 43 that the anchor must fit "within one of a user's cheek pouches."

Improper Application of the Inherent Feature Doctrine.

The Examiner tacitly but incorrectly applies the inherent feature doctrine, by imputing to the Leal device characteristics that are not disclosed by Leal and that would impair or defeat the stated purpose of Leal.

To invoke the inherent feature doctrine an examiner must provide evidence that descriptive matter missing from a reference is *necessarily* present in the thing described in the reference. See MPEP 2112, subd. IV. Where a characteristic must be achieved by optimization of a prior art device, that characteristic is not necessarily present in the prior art and therefore is not inherent. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955; *In re Oelrich*, 666 F.2d 578, 581-582, 212 USPQ 323, 326 (CCPA 1981). See also, *Ex Parte Levy*, 17 USPQ2d 1461, 1664.

The "resilient connection" 24 of the Leal device would have to be optimized by substantially weakening it to permit compression by soft tissues of a user's cheek pouch without causing pain or injury to the soft tissues, but that would defeat the principal purpose of the Leal device which is to retain the patient's mouth open. Therefore, it is not *necessarily* true that a patient's soft tissues could compress the Leal device. The Leal device would be malfunctioning if a patient could close jaws to compress the Leal's device, contrary to Leal's explicitly stated purpose to "maintain the mouth open." A characteristic that would appear only in a malfunctioning device is not an inherent characteristic. See MPEP 2112, subdivision IV.

Leal thus teaches away from Appellant's device because Appellant's solution (a resilient filament that remains stable in a cheek pouch while the user's jaws open and close without any manual intervention by a dentist) would render Leal's device inoperative for Leal's stated purpose. Compare *McGinley v. Franklin Sports*, 262 F.3d 1339, 1354, 60 USPQ2d 1001 (Fed. Cir. 2001) (if references taken in combination would produce "a seemingly inoperative device," then such references teach away from the combination and thus cannot serve as predicates for a prima facie case of obviousness.)

When the art in question is relatively simple, as Appellant's solution is here, the opportunity to judge by hindsight is particularly tempting (see *McGinley v. Franklin Sports*, *supra*, 262 F.3d at 1351), so particular awareness of that risk is important here. It still is the law under the U.S. Supreme Court's recent decision in *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed. 2d 705, 82 USPQ2d(BNA) 1385 (U.S. Sup. Ct., 2007) that an examiner must guard against slipping into the use of hindsight and must guard against the temptation to read into prior art the teachings of the invention in issue.

The Examiner has not offered any evidence showing why one of ordinary skill in the art would modify Leal to render Leal inoperative for Leal's stated purpose, absent application by hindsight of the teaching of Appellant's invention to achieve Appellant's very different objective.

Incorrect Factual Statement That Leal's U-Shaped Upper and Lower Sections and Resilient Connection Are Mutually, Conversely Adjustable.

The Office Action of July 19, 2007 states:

"Applicant argues that the loops of Leal do not have a span size that can be changed when a loop size is adjusted. However, because the Leal device is made of a continuous pieces of metal and is made by bending the wire (cols.

1-2, lines 67 -3), it is obvious that if one loop size is increases it would decrease the loop or span size of another loop."

Applicant respectfully traverses this assertion. The Examiner here tacitly but incorrectly applies the inherent feature doctrine to impute to Leal's device a mode of operation not disclosed by Leal, to wit, a spring element formed with loops that are mutually, conversely adjustable to enable adjustment of the span size of the whole spring element. The Examiner's hypothetical mode of adjustment would impair the fit of the Leal device in a user's mouth by rendering Leal's U-shaped upper and lower loops 12 and 14 asymmetric to each other, contrary to Leal's specification. This would impair the fit of Leal's U-shaped upper and lower sections 12 and 14 to the user's lips and gums.

Leal does not disclose that his entire wire frame is resilient, but only discloses "resilient connection" 24 between Leal's U-shaped upper and lower sections 12 and 14. Leal would have to be modified to enable adjustment of the location of the resilient connection 24 between the two U-shaped sections. If the location of the resilient connection were adjustable, then the location of Leal's cotton-clamping elements 36 and 38 and Leal's coils 40 likely also would have to be adjustable. Leal does not teach any such adjustability. Such adjustability is not *necessarily* present in Leal and therefore it is not an inherent feature of Leal. Leal thus is not an anticipating reference with respect to mutually converse adjustment of loops.

Mutual Adjustment of Leal's Upper and Lower Sections 12 and 14 Would Render Them Asymmetric to Each Other and That Would Impair Their Fit to A Patient's Lips and Gums, Inconsistently With Leal's Specification.

Leal's device has a "frame including upper and lower generally U-shaped sections spaced in relation to one another and generally conformal in shape to the

space between the upper gum and lip and lower gum and lip, respectively," Leal, col. 2, lines 58 - 65, and claims 1, 10 and 11. Leal's "resilient connection" is placed at a defined geometric location, the "axis of this displacement" is formed at the "minor axis" of the "two semi-elliptical portions" which are Leal's upper and lower sections 12 and 14. Leal, col. 3, line 50 - col. 4, line 8. This "semi-elliptical" symmetry is important to conform Leal's U-shaped sections upper and lower sections 12 and 14 to the shape of the user's lips and gums. Leal exploits the common knowledge that a person's upper and lower gums generally are approximately symmetric and U-shaped. If the relative spans of Leal's upper and lower loops were to be mutually adjustable, then one would have to shift the location of Leal's "resilient connection" and "axis of displacement" away from the minor axis of the Leal's ellipse, creating asymmetry between the U-shaped upper and lower sections. This would tend to impair the conformity of Leal's U-shaped upper and lower sections to the patient's lips and gums, creating undesirable pressures on sensitive soft tissues.

So, what would motivate a person of ordinary skill in the field to make Leal's upper and lower sections 12 and 14 conversely adjustable with respect to each other? The Office Action of July 19, 2007 does not say.

It Is Not Apparent How Leal's Cotton Clamping Elements 36 and 38 Could Be Made Adjustable to Accommodate Movement of Leal's Resilient Connection 24 In A Mutually Converse Adjustment Of Leal's U-shaped Upper and Lower Sections 12 and 14.

Leal's clamping elements 36 and 38 are "secured to the wires forming rear portions of the upper and lower sections" of Leal's device. Leal, col. 4, lines 48-50. If, hypothetically, the location of Leal's resilient connections 24 were made adjustable to accommodate a mutual, converse adjustment of Leal's upper and lower

sections 12 and 14, then that adjustment also could force a shift in the location of Leal's clamping elements 36 and 38 which hold Leal's absorbent and cushioning cotton rolls. It is not at all obvious how the location of Leal's clamping elements 36 and 38 and coils 40 on U-shaped upper and lower sections 12 and 14 could be rendered adjustable, nor how the spans of clamping elements 36 and 38 could be rendered adjustable to conform to conversely-adjusted spans of U-shaped upper and lower sections 12 and 14.

Mutually converse adjustability is not *necessarily* present in Leal's upper and lower sections 12 and 14 and therefore it is not inherent in Leal's device.

The Examiner does not explain what would motivate one of ordinary skill to so modify Leal.

Conclusion.

Applicant respectfully requests that the Examiner do the following:

1. Allow new claims 41 - 43, which explicitly limit the cheek pouch anchor to fit within one of a user's cheek pouches.
2. Withdraw the factually unfounded statement that a user could compress the Leal device by closing the user's jaws. Recognize that such compression by the soft tissues of a user's mouth is not a *necessary* and inherent feature of Leal. Recognize that the Applicant's limitation that the spring element must "compress as a user's jaws close" is a patentable distinction from Leal in claims 33 - 40 and allow those claims.
3. Withdraw the statement that imputes mutually converse adjustability as a *necessary* and inherent feature of Leal's U-shaped upper and lower sections 12 and 14, recognize that such mutually converse adjustability is a patentable distinction from Leal, and allow claim 36.
4. Withdraw the statements that Leal anticipates Applicant's claims and that the combination of Leal and Diaz renders Applicant's claims obvious, and
5. Allow claims 33 - 40.

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